# European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC)

## Fourth Report by the United Kingdom under Article 17

on the implementation of the Directive
from January 2013 to December 2018

Supporting documentation for the
conservation status assessment for the habitat:

## H91A0 - Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

SCOTLAND

## IMPORTANT NOTE - PLEASE READ

- The information in this document is a country-level contribution to the UK Report on the conservation status of this habitat, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.
- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.
- The UK Report on the conservation status of this habitat is provided in a separate document.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was only relevant at UK-level (sections 10 Future prospects and 11 Conclusions).
- For technical reasons, the country-level future trends for Range, Area covered by habitat and Structure and functions are only available in a separate spreadsheet that contains all the country-level supporting information.
- The country-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, https://jncc.gov.uk/article17, for further information on UK Article 17 reporting.

# Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

## NATIONAL LEVEL

## 1. General information

| | |
|---|---|
| 1.1 Member State | **UK (Scotland information only)** |
| 1.2 Habitat code | **91A0 - Old sessile oak woods with Ilex and Blechnum in the British Isles** |

## 2. Maps

| | |
|---|---|
| 2.1 Year or period | 2014- |
| 2.3 Distribution map | Yes |
| 2.3 Distribution map Method used | Complete survey or a statistically robust estimate |
| 2.4 Additional maps | No |

## BIOGEOGRAPHICAL LEVEL

## 3. Biogeographical and marine regions

| | |
|---|---|
| 3.1 Biogeographical or marine region where the habitat occurs | **Atlantic (ATL)** |
| 3.2 Sources of information | References within http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/H91A0_SCOTLAND.pdf<br>JNCC (2004) Common Standards Monitoring Guidance for Woodland Habitats, Version February 2004, http://jncc.defra.gov.uk/page-2238<br>Mitchell, R. J., Robinson, A-M., Leith, I. D., Cape, J. N., Van Dijk, N., Tang, Y. S., ... Sutton, M. A. (2005). A study of the epiphytic communities of Atlantic oak woods along an atmospheric nitrogen deposition gradient. Journal of Ecology, 93(3), 482-492. DOI: 10.1111/j.1365-2745.2005.00967.x<br>Mitchell, Ruth & TRUSCOT, A.M. & LEITH, I.D. & CAPE, J.N. & van Dijk, Netty & Tang, Sim & Fowler, David & SUTTON, M.A.. (2005). A study of epiphytic communities of Atlantic oakwoods along an atmospheric nitrogen deposition gradient. Journal of Ecology. 93. 482 - 492. 10.1111/j.1365-2745.2005.00967.x. |

## 4. Range

| | | |
|---|---|---|
| 4.1 Surface area (in km²) | | |
| 4.2 Short-term trend Period | | |
| 4.3 Short-term trend Direction | Stable (0) | |
| 4.4 Short-term trend Magnitude | a) Minimum | b) Maximum |
| 4.5 Short-term trend Method used | | |
| 4.6 Long-term trend Period | | |
| 4.7 Long-term trend Direction | | |
| 4.8 Long-term trend Magnitude | a) Minimum | b) Maximum |
| 4.9 Long-term trend Method used | | |
| 4.10 Favourable reference range | a) Area (km²)<br>b) Operator<br>c) Unknown<br>d) Method | <br><br>No<br> |
| 4.11 Change and reason for change in surface area of range | No change<br>The change is mainly due to: | |
| 4.12 Additional information | | |

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## 5. Area covered by habitat

| | | | |
|---|---|---|---|
| 5.1 Year or period | 2014-014- | | |
| 5.2 Surface area (in km²) | a) Minimum | b) Maximum | c) Best single value 225.91 |
| 5.3 Type of estimate | 95% confidence interval | | |
| 5.4 Surface area Method used | Complete survey or a statistically robust estimate | | |
| 5.5 Short-term trend Period | 2001-2014 | | |
| 5.6 Short-term trend Direction | Stable (0) | | |
| 5.7 Short-term trend Magnitude | a) Minimum | b) Maximum | c) Confidence interval |
| 5.8 Short-term trend Method used | Based mainly on expert opinion with very limited data | | |
| 5.9 Long-term trend Period | | | |
| 5.10 Long-term trend Direction | | | |
| 5.11 Long-term trend Magnitude | a) Minimum | b) Maximum | c) Confidence interval |
| 5.12 Long-term trend Method used | | | |
| 5.13 Favourable reference area | a) Area (km²)<br>b) Operator<br>c) Unknown No<br>d) Method | | |
| 5.14 Change and reason for change in surface area of range | No change<br>The change is mainly due to: | | |
| 5.15 Additional information | Area figures for the third report were based on expert opinion, as there was no comprehensive data available on area or on loss or expansion. The area figure given in the current report is derived from the Native Woodland Survey for Scotland, an inventory of all native woodland. NB it was necessary to convert data from NVC to Annex I, so the figure is a statistically robust estimate rather than a complete survey. Since there is no reliable data for previous periods, it is not possible to report accurately on trends, but it is considered likely that any changes that have occurred are likely to have been small, so the area has on balance probably remained more-or-less stable since over the reporting period. | | |

## 6. Structure and functions

| | | | | | |
|---|---|---|---|---|---|
| 6.1 Condition of habitat | a) Area in good condition (km²) | Minimum 16.5568 | Maximum 16.56 |
| | b) Area in not-good condition (km²) | Minimum 22.41 | Maximum 22.41 |
| | c) Area where condition is not known (km²) | Minimum 186.94379 | Maximum 186.94379 |
| 6.2 Condition of habitat Method used | Based mainly on expert opinion with very limited data | | |
| 6.3 Short-term trend of habitat area in good condition Period | 2013-2018 | | |
| 6.4 Short-term trend of habitat area in good condition Direction | Unknown (x) | | |

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| | | |
|---|---|---|
| 6.5 Short-term trend of habitat area in good condition Method used | Insufficient or no data available | |
| 6.6 Typical species | Has the list of typical species changed in comparison to the previous reporting period? | No |
| 6.7 Typical species Method used | | |
| 6.8 Additional information | Site Condition Monitoring provides a means of assessing the structure and function of woodland on designated sites in Scotland. Site condition has been carried out on SACs since 2013. The proportion of Sacs where H91A0 has declined from 81% to 69% (18 out of 26 sites). By area, 60% of the area of H91A0 on Sacs is in unfavourable condition. Two of the sites that are currently unfavourable are under management that has been assessed as appropriate for achieving favourable condition, although no change has yet been detected, and recovery may take decades. However, this information only relates to Natura sites and equivalent data is not available to assess the condition of H91A0 in the wider countryside (83% of habitat we have no official assessment for - only expert opinion). The improvement in the condition of Natura sites has resulted from a great deal of dedicated effort, which has not been possible elsewhere. It seems unlikely that any such improvement has occurred in the wider countryside and expert opinion suggests that condition of H91A0 is declining more widely. We cannot therefore comment on the trend of habitat in good condition, as we do not have data for this. | |

## 7. Main pressures and threats

7.1 Characterisation of pressures/threats

| Pressure | Ranking |
|---|---|
| Intensive grazing or overgrazing by livestock (A09) | H |
| Other invasive alien species (other then species of Union concern) (I02) | H |
| Problematic native species (I04) | H |

| Threat | Ranking |
|---|---|
| Intensive grazing or overgrazing by livestock (A09) | H |
| Other invasive alien species (other then species of Union concern) (I02) | H |
| Problematic native species (I04) | H |

| | |
|---|---|
| 7.2 Sources of information | |
| 7.3 Additional information | Rhododendron and Gaultheria are pressures in many of these woods<br>Impact of wild herbivores |

## 8. Conservation measures

| | | |
|---|---|---|
| 8.1 Status of measures | a) Are measures needed? | Yes |
| | b) Indicate the status of measures | Measures identified, but none yet taken |
| 8.2 Main purpose of the measures taken | | |
| 8.3 Location of the measures taken | | |
| 8.4 Response to the measures | Medium-term results (within the next two reporting periods, 2019-2030) | |
| 8.5 List of main conservation measures | | |

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| Adapt mowing, grazing and other equivalent agricultural activities (CA05) |
| DO NOT USE Management, control or eradication of other alien species (CI04) |
| Management of problematic native species (CI05) |

| | |
|---|---|
| 8.6 Additional information | The reasons for poor condition are complex, but the main pressures leading to unfavourable condition are herbivore impact and invasive non-native species (Rhododendron ponticum and Gaultheria shallon).<br>Conservation measures are generally implemented through designation of protected areas, voluntary and statutory procedures (Deer Act), and the Forestry Grant Scheme (SRDP). While some results are achievable in the short term, others will require longer. Although conservation measures have been identified, implementation is patchy, so it is not correct to say Measures identified but none yet taken, so much as Measures identified but not consistently taken. However, since the overall trend of structure and function within designated sites is negative, and there is no reason to suppose things to be better outside of such sites, I consider that Measures identified but none yet taken is the case for the majority of the habitat. |

## 9. Future prospects

| | |
|---|---|
| 9.1 Future prospects of parameters | a) Range<br>b) Area<br>c) Structure and functions |
| 9.2 Additional information | Range is considered likely to remain stable. Area is considered likely to remain stable; although gradual attrition of ancient woodland due to herbivore impact is likely over time, creation of new woodland also continues. Without more concerted work to reduce herbivore impact across the range of the habitat, it is likely that structure and function will continue to decline. Models suggest that critical loads for nitrogen are exceeded across 80% of the resource, which might exacerbate this decline. Likely impacts include changes in epiphyte and ground flora communities. In relation to lichens and bryophytes, evidence is lacking for individual sites, but wider studies suggest that these communities are affected by N deposition even in remote areas (Mitchell et al 2005, Mitchell et al 2008). In relation to the vascular ground flora, there is no clear evidence of impact, but over much of the resource ground flora is suppressed by grazing and INNS (especially rhododendron) to the extent that any potential impacts of nitrogen deposition are unlikely to be realised at present. |

## 10. Conclusions

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| 10.1. Range |
| 10.2. Area |
| 10.3. Specific structure and functions (incl. typical species) |
| 10.4. Future prospects |
| 10.5 Overall assessment of Conservation Status |
| 10.6 Overall trend in Conservation Status |

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| | |
|---|---|
| 10.7 Change and reasons for change in conservation status and conservation status trend | a) Overall assessment of conservation status<br>No change<br>The change is mainly due to:<br><br>b) Overall trend in conservation status<br>No change<br>The change is mainly due to: |
| 10.8 Additional information | |

## 11. Natura 2000 (pSCIs, SCIs, SACs) coverage for Annex I habitat types

| | |
|---|---|
| 11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network (in km² in biogeographical/ marine region) | a) Minimum<br>b) Maximum<br>c) Best single value 44.8 |
| 11.2 Type of estimate | 95% confidence interval |
| 11.3 Surface area of the habitat type inside the network Method used | Complete survey or a statistically robust estimate |
| 11.4 Short-term trend of habitat area in good condition within the network Direction | Stable (0) |
| 11.5 Short-term trend of habitat area in good condition within network Method used | Complete survey or a statistically robust estimate |
| 11.6 Additional information | Area figures for the third report were based mainly on expert opinion, as there was no comprehensive data available on area. The area figure for the current report uses the Native Woodland Survey for Scotland, which is an inventory of all native woodland, although it should be noted that it was necessary to convert data from NVC to Annex I, so the figure is a statistically robust estimate rather than a complete survey. Since there is no reliable data for previous periods, it is not possible to report accurately on trends, but it is considered likely that any changes that have occurred are likely to have been small, so the area has on balance probably remained more-or-less stable since over the reporting period. |

## 12. Complementary information

| | |
|---|---|
| 12.1 Justification of % thresholds for trends | |
| 12.2 Other relevant information | |

# Distribution Map

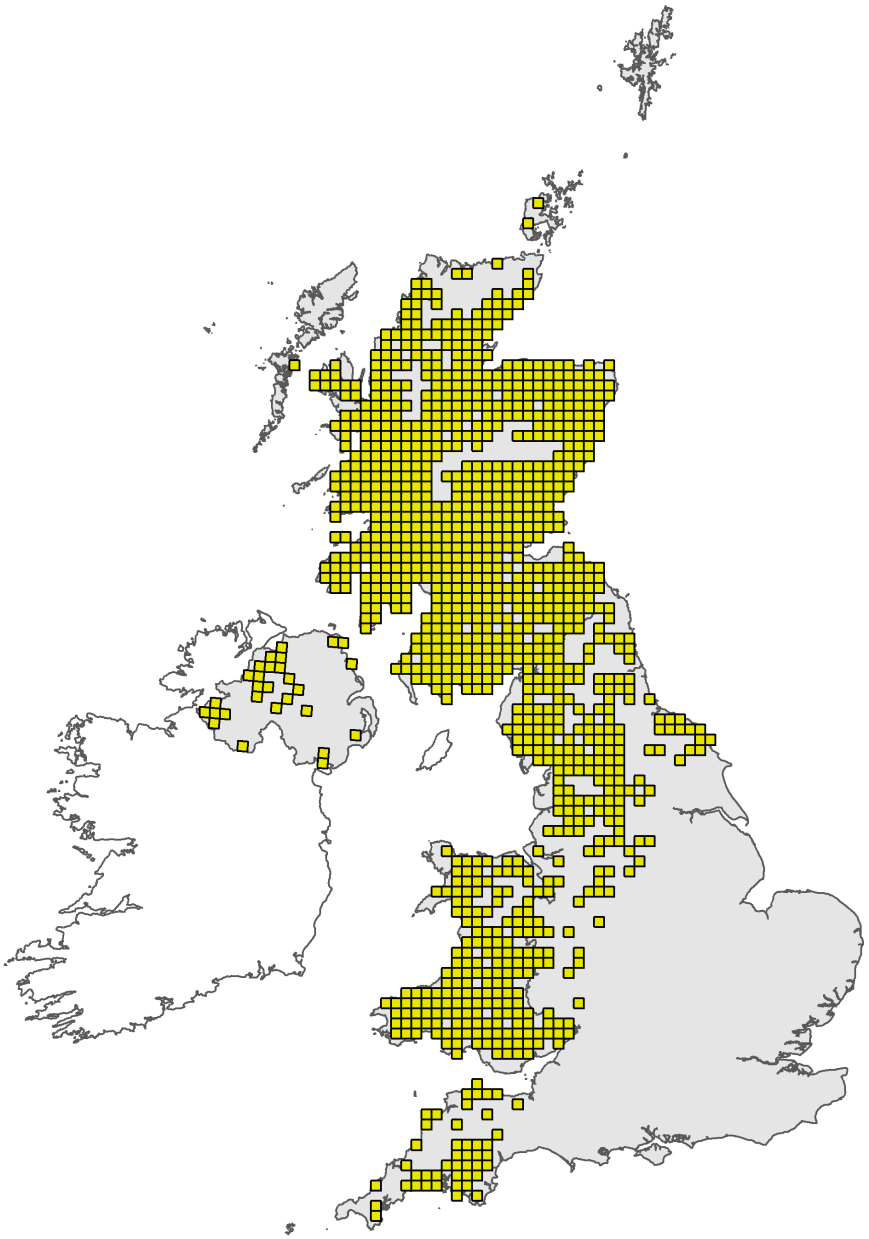

Figure 1: UK distribution map for H91A0 - Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available habitat records which are considered to be representative of the distribution within the current reporting period. For further details see the 2019 Article17 UK Approach document.

# Range Map

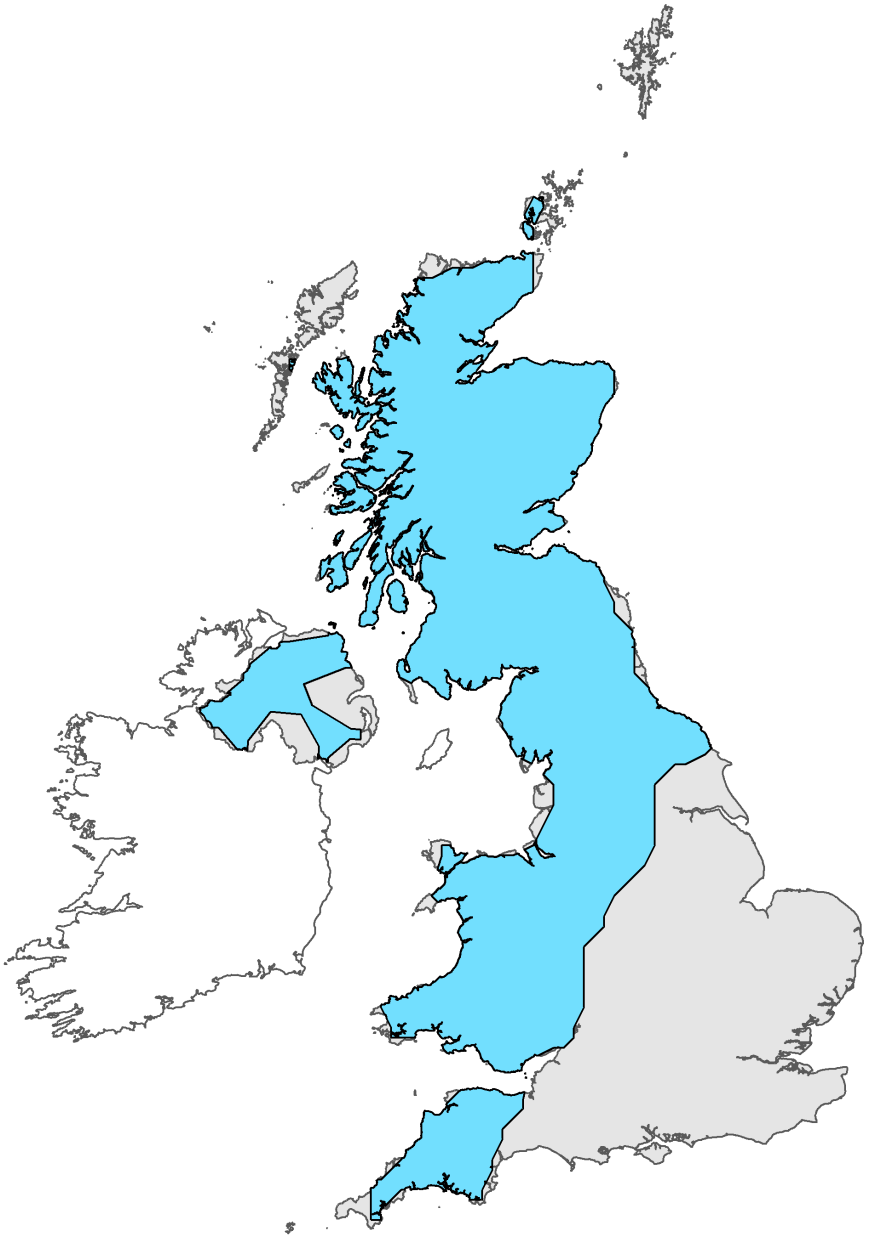

Figure 2: UK range map for H91A0 - Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by applying a bespoke range mapping tool for Article 17 reporting (produced by JNCC) to the 10km grid square distribution map presented in Figure 1. The alpha value for this habitat was 25km. For further details see the 2019 Article 17 UK Approach document.